CALIFORNIA SPECIFIC PE STUDY SAMPLES (DRINKING WATER)

The Environmental Laboratory Accreditation Program (ELAP) had proposed production of performance evaluation (PE) study samples for analytes that were not recognized by the U.S. Environmental Protection Agency for inclusion in upcoming regulations packages. These analytes are monitored by the Division of Drinking Water & Environmental Management (DDWEM) of the Department of Health Services. As state monitored pollutants, the laboratories testing for them required certification and PE study samples. Due to the lack of data on these analytes, the spiking levels and acceptance criteria had to be estimated as guidance for vendors in the production of PE samples and for scoring participant results. The laboratories were required to participate in PE studies for these analytes, but actions were not taken against laboratories for failing such studies. The PE samples were maintained "blind" so that the capabilities of the laboratories, in the interest of public health, could be measured as closely as possible to real world situations. For the PE studies to be effective as a means for evaluating the proficiency of laboratories in the production of data, the details of the sample design prior to a study had to be withheld. The table below titled, California Specific Performance Evaluation Study Analytes, depicts the spiking levels and the tentative acceptance criteria for California specific analytes. The spiking levels as well as the acceptance criteria have evolved through the past three years, and the table shows the most current of these. Until new regulations are adopted, PE study samples for California specific analytes will no longer be considered "blind" and the samples should be used by the laboratories for maintaining their proficiency and compliance with the needs of their client regulatory agencies. The PE vendors will be instructed to continue to prepare and distribute these samples as needed by the laboratories, until further notice.

Any comments on the spiking levels or acceptance criteria that appear in the table below should be directed in writing to Fred Choske at California State Department of Health Services, 2151 Berkeley Way, Annex 2, Berkeley, CA 94704.

Any questions on the above information should be directed to Fred Choske at (510) 540-2800.

CALIFORNIA SPECIFIC PERFORMANCE EVALUATION STUDY ANALYTES

DRINKING WATER PE SAMPLES

ANALYTE	SPIKING LEVELS[1]	ACCEPTANCE CRITERIA[2]
chromium VI	10 to 50ug/L	±20% for ≥10ppb, ±30% for <10ppb
silica	52 to 130mg/l	±20% for ≥10ppb, ±30% for <10ppb
vanadium	6 to 15ug/L	±20% for ≥10ppb, ±30% for <10ppb
MBAS	0.05 to 0.13 mg/L	±25%
perchlorate	10 to 18ug/L	±15% for ≥10ppb, ±25% for <10ppb
UV254	0.01 to 0.9 cm^{-1}	±25%
aroclor 1016/1242	0.16 to 0.4ug/L	EPA WP-evaluation criteria
aroclor 1232	1 to 2.5ug/L	EPA WP-evaluation criteria
aroclor 1248	0.2 to 0.5ug/L	EPA WP-evaluation criteria
aroclor 1254	0.2 to 0.5ug/L	EPA WP-evaluation criteria
aroclor 1260	0.4 to 1ug/L	EPA WP-evaluation criteria
butylbenzylphthalate	5.3 to 13.4ug/L	±70%
diethylphthalate	1.6 to 4.2ug/l	±70%
dimethylphthalate	2.3 to 5.7ug/L	±70%
di-n-butylphthalate	1.5 to 6.3ug/L	±70%
Acenaphthylene	0.2 to 0.5ug/L	±50%
Anthracene	0.14 to 0.35g/L	±50%
Benzo(a)anthracene	0.4 to 1ug/L	±50%
Benzo(b)fluoranthene	0.6 to 1.5 ug/L	±50%
Benzo(k)fluoranthene	1 to 2.5 ug/L	±50%
Benzo(g,h,i)perylene	0.1 to 0.24ug/L	±50%
Chrysene	0.16 to 0.41ug/L	±50%
Dibenzo(a,h)anthracene	0.02 to 0.05ug/L	±50%
Fluorene	0.12 to 0.3ug/L	±50%
Indeno(1,2,3-c,d)pyrene	0.12 to 0.3ug/L	±50%
Phenanthrene	0.12 to 0.3ug/L	±50%
Pyrene	0.13 to 0.33 ug/L	±50%
ethyl-t-butylether (ETBE)	6 to 15ug/L	±20% for ≥10ppb, ±40% for <10ppb
t-amylmethylether (TAME)	6 to 15ug/L	±20% for ≥10ppb, ±40% for <10ppb
di-isopropylether (DIPE)	6 to 15ug/L	±20% for ≥10ppb, ±40% for <10ppb
trichlorotrifluoroethane (Freon 113)	20 to 50 ug/L	±20% for ≥10ppb, ±40% for <10ppb
methyl-t-butyl ether (MTBE)	6 to 13ug/L	±20% for ≥10ppb, ±40% for <10ppb
tert-buty alcohol	4 to 12ug/L	±20% for ≥10ppb, ±40% for <10ppb
diazinon	0.2 to 0.6 ug/L	±45%
molinate (ordram)	4 to 10ug/L	±45%
thiobencarb	2 to 5ug/L	±45%
bentazon	4 to 10mg/L	±45%
paraquat	1.6 to 4ug/L	±50%

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1) Suggested spiking levels – vendors may choose a different level as long as it is above the MDL or DRL, whichever is greater
2) Based on true (assigned) value